DOCUMENT RESUME

ED 409 958 JC 970 422

AUTHOR	Goldsmith, Diane J.; Archambault, Francis X.
TITLE	Persistence of Adult Women in a Community College Re-Entry Program.
PUB DATE	Jan 97
NOTE	53p.
PUB TYPE	Reports - Research (143)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	*Academic Aspiration; *Academic Persistence; Adult Students; Community Colleges; *Dropout Characteristics; Dropout Research; *Females; Predictor Variables; *Reentry Students; Student Attitudes; *Student Characteristics; Student Educational Objectives; Two Year College Students; Two Year Colleges

ABSTRACT

A two-phase study was conducted to gather data on the persistence of adult women enrolled in a 1-semester re-entry program at a community college. Specifically, the study sought to develop a model of persistence that took into account the effect of student characteristics, initial goals, academic and social integration, goal changes, and external commitments on persistence. In the first phase, questionnaires were sent to 612 women who had enrolled in the program from fall 1987 to fall 1993, while in the second phase qualitative data were obtained through interviews conducted with six persisting and four non-persisting women from the sample. Study findings, based on the interviews and completed questionnaires received from 306 women, included the following: (1) for the women who were still enrolled at the college or another school or had graduated, only financial aid status, grade point average, and final goal were significantly related to persistence; (2) while non-persisters did not share any particular set of qualifications, they differed from persisters in their reasons for attending, lack of integration into the college, and lack of commitment to obtaining a degree; and (3) as a result, a new persistence model for adult women was developed incorporating an intention to change one's life, an ability to integrate academic and personal spheres, and the goal of getting a degree. Contains 29 references. Data tables are appended. (BCY)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 409 958

Persistence of Adult Women in A Community College Re-Entry Program

Diane J. Goldsmith
Manchester Community-Technical College

Francis X. Archambault
University of Connecticut

January 1997

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
D. Goldsmith
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

JC 970 422

BEST COPY AVAILABLE

Introduction

> Despite the fact that older non-traditional students now constitute well over 30% of all college students, there is insufficient evidence to conclude that the factors that influence educational attainments are the same for this group as they are for their traditional-age counterparts. A similar statement could be made for students who work, who attend college part-time rather than full-time, or who are enrolled in two-year rather than four-year institutions. (Pascarella and Terenzini, 1991, p.414)

Models of persistence have been developed as a way of understanding why some students continue their education, while others, who had intended to continue, do not. Most recent studies of persistence have used a theoretical model developed by Tinto (1975, 1987). Using traditional-age students attending residential colleges as his primary subjects, Tinto based his theory on students leaving their family and high school friends and making a transition to a new life in college. In general, students at residential colleges create a new social life at college, let go of many of their old connections, and focus on their academic goals and achievements. Tinto theorized that students who are able to feel integrated into the college in both the social and academic realms will persist; those who don't feel they fit will leave. This ability to integrate into the college is affected by the background characteristics of the students, their initial goals, and their external commitments.

"Retention" as commonly used by colleges and universities is an institutionally-centered concept which refers to the ability to keep students in a particular college or university until they graduate. Tinto (1987) proposed a definition which shifted the focus from the institution to students. Students are "persisters" if they are continuing to work toward a degree, whether it is at the institution where they began their education, at an institution to which they have transferred, or whether they have "stopped out" (taken one or more semesters off). At community colleges where stopping out and transferring to four-year institutions and other two-year institutions are very common, this definition is more useful than one that is focused on the institution. In this study, which is concerned with persistence for non-traditional students enrolled at a community college, students who were currently enrolled at any college or who had

completed a degree at any college fit this definition and were termed "traditional persisters". However, since many students enter a community college without aspiring to a degree, a second definition of persistence, that of meeting one's goals, was also necessary. In this study, these students were called "goal persisters".

Tinto's model describes an interaction among pre-entry attributes (i.e. family background,

---

Insert Figure 1 about here

---

skills, abilities, and prior schooling), academic and social fit, and student goals to explain why some students persist and others don't. While developed primarily for four-year residential colleges, Tinto's model has been empirically tested at community colleges and with non-traditional students and provides much useful information. Unfortunately, these community college studies have also reached contradictory conclusions and have thus left many unanswered questions. Academic integration, which includes both formal measures such as GPA and informal measures such as faculty contact, had a direct or in some cases an indirect effect on persistence in several studies (Farabaugh-Dorkins, 1991; Neuman, 1985; Pascarella, Duby, Iverson, 1982; Pascarella, Smart, Ethington, 1986;). However, other studies did not find such an effect (Bean & Metzner, 1985; Iverson, Pascarella, & Terenzini, 1984). Many studies found that social integration, defined as both formal membership in student organizations and/or informal social contacts with peers and faculty, had no or a negative effect on persistence (Bean & Metzner, 1985; Coggins, 1979; Farabaugh-Dorkins, 1991; Pascaralla & Chapman, 1983). However, other researchers found that social integration, especially peer support, was a factor in persistence (Neuman, 1985; Pascarella, Smart, & Ethington, 1986). This same inconclusiveness in research findings related to community colleges was true for all of the components in Tinto's model including pre-entry attributes, goals, and external commitments. The present research

focused on the questions raised in these earlier studies, particularly in terms of older women in a community college setting.

Using quantitative and qualitative research methodologies, four research questions were addressed. The first three examined the persistence of adult women in a community college using Tinto's categories: pre-entry characteristics, initial goal, academic and social integration, new goal, and external commitments. The first research question defined persisters as those students who had graduated or were still enrolled in the college ("traditional persisters") and asked what effect variables defining Tinto's categories had on persistence. The second question acknowledged that many women entered the community college with goals other than obtaining a degree (e.g. to see if they liked college, for intellectual stimulation, to take courses for their job, to explore what to do next in life) and asked whether these same variables contributed to these students meeting their goals, as they defined them ("non-traditional persisters"). The third research question explored which, if any, of these variables influenced whether students' goals change.

This research also was concerned with the unique characteristics of community colleges. Quite frequently community colleges are the entry points to higher education for older students, poor students, and students of color. There is much debate over whether community colleges marginalize such students or whether they offer them opportunities to succeed that would not normally be open to them (Brint & Karabel, 1989; Clark, 1980; Dougherty, 1984; Eaton, 1994; Karabel, 1986; Vaughan, 1980; Wilson, 1986). The fourth research question was designed to partially address this concern, by asking whether community colleges provide adequate support systems for adult women, especially poor women, to meet their goals.

Methodology

The use of multiple methodologies, especially the combination of quantitative and qualitative methods, to examine an educational problem can afford a richer, more holistic understanding of complex phenomena than is possible using either method alone (Borg & Gall,

1989; Jick, 1979; Mathison, 1988). This study used both quantitative and qualitative methods to investigate the four research questions. Phase one of this two phase study included the development and quantitative analysis of a survey questionnaire. Phase two included follow up interviews conducted and analyzed using qualitative methods. The first three research questions were addressed using data from both phases. Question four was addressed only through qualitative methods.

Tinto (1987), Castle (1993) and Pascarella, Duby, and Iverson (1982) all suggest very strongly that persistence studies be conducted at the institutional level, because of the issues of academic and social fit. This study was done at a large community-technical college in the suburbs of a medium sized city in the Northeast.

Quantitative Methodology

A survey was developed to test Tinto's theory using the variables most often mentioned in the literature on persistence as well as in the literature on adult women who return to school (Mutter, 1992; Pascarella & Chapman, 1983; Pascarella, Duby & Iverson, 1983; Pascarella, Smart & Ethington, 1986). Using this previous work, variables were established for each of the categories in Tinto's model. Table 1 indicates the variables used and how they were coded.

Insert Table 1 about here

The differences in some of the variables used reflect the fact that the survey was directed at adult women in a community college setting. For example, external commitments included not only employment but measures of support from their spouses/partners and children. The survey was reviewed, in various pilot stages, by experts who work with returning women at the community college and pilot tested on 15 returning adult students.

The sample for the survey questionnaire included all women, 25 years or older at the time they entered college, who had enrolled in a college's re-entry program from the fall of 1987

until the fall of 1993. The re-entry program is a one semester program for adult students who are restarting their education. Approximately 16% of the women over 25 who enter the college in the fall semester enter through the Adults in Transition Program. Since addresses were not available for all these students, a discriminate function analysis using age, race, number of credits completed, and GPA as predictor variables was run to test whether there was a difference between those with and without known addresses. Only grade point average entered the model (R^2=.03). Students whose addresses were known had a mean GPA of 2.89; those whose addresses weren't known had a mean GPA of 2.13 Thus it appears that those whose addresses were missing were similar in age, race, and number of credits but had a lower GPA than those who received the survey.

Surveys were sent to 612 women. After two waves of mailings and follow up phone calls, 306 were returned, a 50% return rate. A stepwise discriminate function analysis was run to test whether those who returned the surveys differed from those who did not. Table 2 includes means and standard deviations for those variables.

Insert Table 2 about here

At step zero all of the variables except race had univariate F ratios which were significant at the .05 level. However, only grade point average entered the model ($F [1, 492] = 39.57, p \leq .01$), although the effect size is small (Wilks-Lambda=.89, R^2=.11). Those who returned the survey had higher GPA's than those who didn't.

Approximately 10% of the people who were sent the survey had a GPA of zero and had completed one credit or less. Only six people who returned the survey, less than 2%, fell into this category. Most of these students left the college after completing one semester or less. It appears, therefore, that those students who were not academically prepared to succeed at college are not represented in the sample of those who responded to the survey. Those who returned the

survey are representative of those students who had the ability to persist and made choices about whether to do so.

Students who responded to the survey included those who began the re-entry program in each of the eight years from which they sample was drawn. The demographics of the respondents are shown in Table 3

Insert Table 3 about here

The program and goals of the respondents is shown in Table 4.

Insert Table 4 about here

Discriminant function analysis was used for the quantitative phase of this research. For research questions one and two the sample was divided into two random parts. One part, using 60% of the respondents, was used to perform all the analyses. The other, containing the remaining 40% of the respondents, was used for cross validation. For these research questions, stepwise discriminant function analyses were performed first on the pre-entry characteristics (race, age, marital status, financial aid status, high school grades, attitude toward high school, their first goal, and the number of children they had when they entered college) and then on college experiences (grade point average, academic integration, and social integration) to select significant predictors. Then, a hierarchical stepwise discriminant function analysis was performed with significant pre-entry attributes entered first, significant attributes of college experience entered second, and the student's final goal entered third. Because a large number of the respondents had either no children and/or no partners, separate discriminant function analysis was run of external commitments.

Qualitative Methodology

In order to add richness to an understanding of research questions one, two, and four, additional data were collected and analyzed using qualitative methods. For this phase of the research project, ten adult women who entered the college through the re-entry program were interviewed. Because of the demographics of this community college, women of color and poor women were under-represented in the survey and therefore were oversampled in this phase of the research. Also, an attempt was made to interview women who were incorrectly classified by the discriminant function analysis, especially those persisters who were classified by statistical methods as non-persisters.

Those women who met the above criteria were placed in two pools of potential interviewees (persisters and non-persisters) beginning with those incorrectly classified, then women of color, women who had graduated (for the persister pool) and others. An attempt was made to phone the potential interviewees in the order of the list. If an individual could not be contacted, the next person on the list was phoned. Persisters who were reached agreed readily to the interview, and six were interviewed. Finding non-persisters who would agree to participate was more difficult. Four non-persisters were interviewed. One of the students was in the process of changing from persister to non-persister, while another who had been a non-persister had re-entered the institution. Demographic information for those interviewed is presented in Table 5.

Insert Table 5 about here

Each person was interviewed once with each interview lasting approximately an hour. The initial interview protocol consisted of a series of open ended questions designed to explore the participants' background, high school experiences, reasons for choosing to go to college, experiences and feelings about attending college, study habits, family attitudes toward their being

in college, major changes while in school, changes in goals, and their perception of what helped or hampered them in meeting their goals. These interviews were designed to provide rich data to support a grounded theory concerning the persistence of adult women in community colleges (Strauss, 1987; Strauss & Corbin, 1990). In order to aid in the development of theory, additional information about the interviewees, including their college record and information from the open-ended questions from their survey, as well as the researcher's field notes, were included in the analysis.

The interview data were analyzed using Strauss and Corbin's (1990) coding paradigms. Open coding was used to "conceptualize the data" (Strauss & Corbin, 1990, p. 63) by breaking it down into discrete categories. From these open codes, axial codes were developed which made connections between the categories discovered in the open coding. Finally, through selective coding, core categories which integrate the axial codes and provide the central explanations of the phenomena studied were established.

Quantitative Findings

Traditional Persisters

The first question addressed in this research was: What are the effects of pre-entry attributes, social and academic integration, goals, and external commitments on persistence. In addressing this question, traditional persisters were defined as those who were still enrolled at either a community college, four-year institution, or graduate school, or those who had graduated from one of those institutions.

For traditional persisters, only three variables were significant in the final model: financial aid, grade point average, and final goal. With the exception of financial aid, which is both a measure of socio-economic status and an indication that the student has the financial support necessary to attend college, no pre-entry variable was useful in distinguishing traditional persisters from traditional non-persisters (see table 6).

Insert Table 6 about here

At step zero only financial aid had a univariate F ratio which was significant at $p<.05$, and financial aid was the only variable to enter the model ($F[1,171] = 6.86$, $p<.01$). It should be noted, however, that the effect size was small (Wilks' Lambda = .96, $R^2 = .04$). Traditional persisters were more likely to receive financial aid than traditional non-persisters. The jackknifed classification was 70% accurate, 100% accurate at classifying the persisters and 0% accurate at classifying the non-traditional persisters.

In many ways traditional persisters and traditional non-persisters were alike in their pre-entry attributes. They did not differ in race, marital status, or number of children. Persisters were 43 years old and non-persisters were 46, three years older. They both had high school grades in the C and D range and had a moderately positive attitude toward high school. The two groups did differ in their first goal, although that difference was neither significant in a univariate test nor strong enough to enter the model. Traditional persisters had a higher first goal than traditional non-persisters.

Although persisters had a higher grade point average than non-persisters, both groups had very high academic integration, indicating a positive feeling toward the faculty and toward their classes. They both had a low sense of social integration (see table 7). Neither group spent much

Insert Table 7 about here

time interacting with faculty outside of classes, meeting with study groups or partners, socializing with college friends, or attending college events that weren't required. While grade point average did enter into the model, it is important to note that both groups had relatively high grade point averages. The mean for traditional non-persisters, 2.97, was just below a B average;

the mean for traditional persisters, 3.38, was just above a B+. In other words, both groups had the academic grades to pursue any type of goal from graduating to transferring.

The hierarchical discriminant function analysis was run with the order of entry determined chronologically. That is, the pre-entry attribute of financial aid was entered first, actual GPA second, and the student's new goal, coded from 1 for no degree goal to 6 for a graduate degree, was entered third. At step one, financial aid was significant ($F [1, 175] = 7.16$, $p<.05$) and the model had a small effect size (Wilks' Lambda =.96, R^2=.04). The jackknifed classification predicted 100% of the traditional persisters and none of the traditional non-persisters. When grade point average was entered, the predictive status of financial aid changed very slightly ($F [1, 174] = 7.31$, $p<.05$), and grade point average was significant ($F [1, 174] = 8.14$, $p<.01$). Wilks' Lambda increased to .92 ($R^2 = .08$) and the jackknifed classification improved slightly, with 97.8% correct for traditional persisters and 13.7% correct for traditional non-persisters. When New Goal ($F [1, 173] = 16.06$ $p<.01$) entered the model at step three, the predictive status of GPA decreased ($F[1,173] = 3.86$, $p<.05$). The model as a whole had a medium effect size (Wilks' Lambda = .84, $R^2 = .16$) and the jackknifed classification as a whole was 75.7%, 89.7% correct for traditional persisters and 41.2% for traditional non-persisters.

Traditional persisters had a higher new goal than non persisters. The classification was cross validated with 40% of the surveys which were not included in the original analysis. The jackknifed classifications for this group were almost identical to the first. Overall, 73% of the cases were classified correctly; 89% accurately for the persisters and 43% accurately for the non-persisters. The final model was highly accurate for classifying persisters, but not for classifying traditional non-persisters.

It was apparent from the literature that issues of spousal/partner, children's and friends' support might play a role in persistence. However, including these issues in the data analyses described above presented major missing data concerns since many of the participants had no children and/or no partners. Consequently, a separate discriminant function analysis was run for the external commitments on those respondents who had children and partners. These included

the scales of spousal support, children's support, friends' support, and a measure of outside employment. None of these variables entered the model. From the means in Table 8 it was apparent that both groups enjoyed the support of their spouses, children, and friends, and did not differ on the amount of their outside employment. Because of the small numbers involved, no random cases were retained for cross validation.

Insert Table 8 about here

Discussion of Traditional Persisters. The models that have been used to explain persistence do not fit these adult women at the community college. What is interesting is how similar both persisters and non-persisters were in this study. They had very similar pre-entry attributes, their experience in college was similar, and their external supports and commitments were similar. Moreover, even differences which are statistically significant were not that large. The two groups differed, but not that greatly, on grade point average and receiving financial aid. Their greatest difference, as the model shows, was in their new goal.

Whereas high school experience is an important predictor for traditional-aged students, it was not surprising that neither their attitude toward high school nor their achievement in high school, as measured by their high school grade point average, predicted adult women's persistence in college. For most of these women, high school took place over twenty years before they entered college, and their motivation and skills changed in the intervening years. Persisters received more financial aid than non-persisters. There are several ways one could interpret the significance of financial aid. Financial aid was an indication that persisters have less family income than non-persisters, but also that they were receiving some help in paying for college. This financial assistance may allow people who are financially on the edge to persist. Alternatively, it could be that lower income women had a stronger motivation to finish than higher income women. A degree is perceived to open the door to better paying jobs. Some of the higher income women might have been in higher paying jobs or had the support of their

partners and might not have had the same economic motivation to persist. In the open-ended questions, several of the non-persisters mentioned financial issues as the reason they felt they weren't able to meet their goals.

Tinto's theory of persistence hinges on social and academic integration. While some researchers have found that social integration has no or a negative effect in persistence in non-residential institutions, most have found that academic integration was important (Bean & Metzner, 1985; Pascarella, Duby, & Iverson, 1982; Pascarella & Chapman, 1983). And yet for these adult women students, there was no difference between traditional persisters and traditional non-persisters on either of these measures. Social integration appeared not to be important to either group as both groups spent little time outside the classroom with either peers or faculty. Both groups found great satisfaction academically. Persisters did better academically, having a slightly higher GPA, but non-persisters had a respectable GPA. Since both groups had a very high sense of academic integration, it is not clear whether the difference in GPA is due to ability, time put into studying, or is somehow related to their goals.

Traditional Persisters had an average goal between an associate's degree and a bachelor's degree. Those who didn't persist had goals that ranged between getting a certificate and transferring to another Community-Technical college. This difference was slightly greater than in their first goal, the one they reported coming to school with. Persisters began with a mean goal of obtaining an associate's degree. Traditional non-persisters had a mean first goal almost identical to their new goal. Persisters' goals went up; non-persisters' goals stayed the same. It is important, therefore, to look at research question three which asks which variables affect whether goals change.

Finally, both groups enjoyed the support of the people who were important in their lives. They had friends, spouses, and children who supported them. Both groups also had many other responsibilities that required their time and energy. They both worked more than part-time outside of the home, and childcare and household chores fell heavily on them. Over sixty percent of all the respondents reported that they did more than 75% of the childcare. A similar

percentage reported that they did more than 75% of the household chores. In response to open ended survey questions, some of the non-persisters wrote about the demands of children or their jobs as a reason they decided to leave or postpone their education, but there was nothing to indicate that persisters didn't have the same demands yet decided to resolve the demands on their time in a different way.

Goal Persisters

Students enter community colleges with a wide variety of goals. This is especially true of adult women. Over a third of the women in this study (37.9%) entered college with a goal that was unrelated to getting a degree. Over half of those women without a degree goal came to college "as a way of exploring what to do next in my life." If a woman came to school with that goal, took two courses, decided that what she was presently doing was meeting her needs, and left school, she would be a traditional non-persister. However, she might well have felt she met her own goals. The same series of analyses which were used to examine traditional persisters were used to examine goal persisters.

In the analysis of pre-entry attributes, at step zero, marital status was the only predictor with a significant ($p<.05$) univariate F ratio and it was the only pre-entry attribute to enter the model ($F[1, 170] = 6.16$, $p<.05$); however it had a small effect size (Wilks' Lambda = .93, R^2 = .07).

In the analysis of academic experience, as was true for traditional persisters, only GPA entered the model ($F[1,178] = 21.66$, $p<.01$.). The effect size was medium (Wilks' Lambda = .89, R^2 = .11). It is interesting to note that GPA is more powerful at predicting goal persisters than traditional persisters. As with traditional persisters, both groups had high academic integration and low social integration.

As with traditional persisters, a hierarchical discriminant function analysis was run with marital status being forced in first, then GPA, and finally new goal. In this case, however, the student's new goal contributed nothing to the model. New goal had a non-significant ($p>.05$)

univariate F ratio. Goal persisters had a mean new goal of 3.25, while goal non-persisters had a mean new goal of 2.95. A goal of an associate's degree was coded 3. At step one, marital status entered ($F[1,175] = 6.12, p<.05$). At step two, when GPA entered ($F [1, 174] = 17.99, p<.01$), the predictive status of marital status decreased ($F [1, 174] = 1.93$) and was non significant. The model at step two had a medium effect size (Wilks' Lambda = .88, $R^2=.12$), and the jackknifed classification function classified a total of 79.7% of the respondents correctly, 97.1% of the goal persisters but only 15.8% of the goal non-persisters. At step three, when a non-significant ($p<.05$) new goal entered the model ($F [1, 173] = .04$), the effect size did not change and the jackknifed classification of the goal non persisters, although not the goal persisters, worsened to 13.2%. The jackknifed classification of those surveys held out for cross validation was very similar to those cases analyzed. The total correct percentage was 80%, with 96% of the goal persisters correctly classified and only 13% of the goal non-persisters correctly classified.

Similar to the analysis of traditional persisters, external supports were analyzed separately because of the large amount of missing data. None of the predictor variables entered the stepwise discriminant function analysis. The two groups were very similar on all of these four measures.

Discussion of Goal Persisters. The quantitative phase of this research provides little new knowledge of the complex decisions made by goal persisters. It seems logical that those women who entered college with a wide range of goals that didn't include a degree and who did not alter those goals to a degree goal would not be easily described by a model designed to understand traditional persistence.

The fact that the model can not classify goal non-persisters (only 13.2% were classified correctly) seemed to indicate that their reasons for coming to college and their reasons for staying did not fit into a model of persistence which assumed that persistence was related to continuing one's education or obtaining a degree.

Goal Changers

Because students' new goals were so important in distinguishing traditional persisters from traditional non-persisters, research question three asked how these variables affected students' goals changing. One hundred and twenty one students changed their goals. Thirty-eight lowered their goals toward a lower degree or no degree; eighty-three aspired to higher degrees as their new goal. The same process of analyzing data was used for this research question, with two exceptions. Since goal change was a function of first goal and new goal, those two variables were not used in the analysis. Secondly, no cross validation was attempted because the number of people who changed goals was too small to allow for the removal of a portion of the sample.

None of the pre-entry attributes entered into the model. The same three measures of college experience (i.e. academic integration, social integration and GPA)were entered into the stepwise discriminant function analysis. Because no pre-entry attributes were significant and because new goal was not used in this analysis, this discriminant function analysis became the final model. Both GPA and Social Integration entered into the model.

GPA entered first ($F[1,119] = 9.198$, $p<.01$). It had a small effect size ($R^2 = .07$) and it correctly classified 70.2% of the cases. It was highly accurate for those who changed to a higher goal (70.2%) but less so for those whose goals diminished (13.2%). Social integration was significant ($F[2,118] = 7.440$, $p<.01$). The effect size with both variables in the model was small (Wilks' Lambda = .89, $R^2 = .11$) and the jackknife classification increased slightly (72.7% correct overall). Again those whose goals increased had a higher correct classification (95.2%) than those whose goals decreased (23.8). The same external commitment variables were run for this group. None entered into the model.

/

Discussion of Goal Changers. While social integration does not appear to directly distinguish traditional persisters from traditional non-persisters, it appears to play a role in who decides to change their goals. Those who changed their goals upward had higher social

integration than those who changed their goals downward, and having a higher goal is a factor in persistence. However, the socializing of both groups is minimal. None of these adult students said they socialized even as little as once a week during a semester with their peers or faculty outside of class. It was clear from their work schedules and their responsibilities for maintaining the household and having primary responsibility for the children that there was not a lot of time for socializing. However, from this analysis it appeared that having a small but significant contact with other students and faculty was related to a revision of goals upwards, a belief that they can accomplish more than they originally planned. This belief may also be accompanied by the reality of a GPA in the B+ to A- range. As higher goals led to greater persistence for traditional persisters, social integration coupled with a high GPA seemed to play a significant role in students aspiring to higher educational goals.

Discussion of Quantitative Findings

Tinto's model does not seem to apply to this population, yet some of its pieces are useful in understanding why adult women in community colleges persist. Table 9 presents a summary of the quantitative findings

---

Insert Table 9 about here

Unlike in Tinto's theory, pre-entry attributes, with the exception of financial aid as a measure of socio-economic status, play no significant role in distinguishing traditional persisters from non-persisters. Financial aid is both an indicator of low family income and an indicator that there is some financial support during one's education. Whether it is the support which makes a difference or whether having a low income is a strong motivator for persisting is not clear from the data.

THIS PAGE INTENTIONALLY LEFT BLANK

As in Tinto's theory, the students' final goal, their intention to pursue their education, is very important in persistence. Those students with higher goals tend to persist while those whose goals are lower may not. The core of Tinto's theory is that the students' experiences in the institution, their sense of social integration and academic integration, are what shape this final goal. For all of the women who answered the survey, academic integration was very high. These students enjoyed their classes, felt supported by faculty, and felt intellectually integrated into the college. Many of the written comments on the open-ended questions, of both traditional persisters and non-persisters, indicate that coming to college helped them to grow intellectually and to gain confidence in their skills. Thus, academic integration is high for both groups and, therefore, not useful in distinguishing the persisters from the non-persisters.

Although academic attainment as measured by GPA is significantly different for traditional persisters and non-persisters, non-persisters have a respectable mean GPA of between B- and B. While this GPA could stop some students from achieving a specific goal, such as entry into nursing or an allied health program, it would not stop anyone from being able to pursue the goal of a higher degree. None of the comments on the open-ended questions indicated that a student became a non-persister due to a GPA which was too low to allow them to achieve her goal. However, this was an issue examined in the qualitative phase of this study. One caveat is to note that only 6 of the students from the re-entry program whose GPA was 0 and who had less than one credit answered the survey. It appears that those students who would be stopped from attaining goals by a low GPA were not included in these analyses.

Social integration for both groups is low. These students spent less than one time a week per semester engaged in socializing either with peers or faculty outside the classroom. This finding is consistent with those studies which found that social integration for commuter students was low (Pascarella, Duby, & Iverson, 1982; Pascarella & Chapman, 1983). However, as Neuman's (1985) qualitative study found, social integration has a significant correlation with those who, after being in college, aspire to new goals that were higher than when they first entered. Students who change their goals upward do spend more time with other students and

faculty. How this affects their decision to change their goals is one of the questions to be explored in the qualitative phase of this study.

Lastly, unlike Bean and Metzner's (1985) research on non-traditional students and Farabaugh-Dorkins (1992) research, external support seems to play no role in separating traditional persisters from non-persisters, goal persisters from non-persisters or those who changed their goals. All of these students reported receiving support from spouses/partners, children, and friends. Despite the myths that going back to school harms relationships with spouses/partners, no evidence from these students indicated that that was true.

This quantitative analysis leaves many questions unanswered. Many of them were addressed in phase two, the qualitative part of this study.

Qualitative Findings

This section of the paper examines the core categories which emerged from analyzing the interviews -- first in terms of the persisters and then in terms of non-persisters. The core categories, as summarized in Table 10, discussed in this section are 1) college as choice; 2) integrating college, self, and family; 3) degree as goal.

Insert Table 10 about here

Persisters: College as Choice

For traditional-age students who expect to continue their education, college is the next step after high school. For adult women, college is not an expected next step; it is a conscious choice from among a myriad of choices. It is choosing to alter one's life radically. All of the persisters had reached a point of crisis where they needed to reconsider how their life was structured and what they wanted from the future. For most of these women, this decision was coupled with the ending of a relationship and the loss of financial supports.

Need for a Life Change. Tamara had recently been divorced, was on welfare and was receiving no child support. "I hit the ceiling at work. Without a degree I couldn't go any further....I hated being poor." Barbara too had recently been divorced and was trying to figure out how to support herself and her child. Dorothy was divorced and working at unsafe, low paying jobs. "I decided this life was not for me. I wanted something better. I wanted money. I needed to be able to provide for the kids." She passed her GED, left her job, and ended up receiving Aid for Families with Dependent Children (AFDC) benefits. Elaine was working at a job she not only disliked but considered "dead end." Her child's father was not paying child support, and her son was diagnosed with leukemia. She had to leave her job to take care of him and she also ended up on AFDC. For Rita, the dissolution of her second marriage meant "it was time to get a real life." Linda had had a series of "dead-end" jobs, was the sole support of her son after her relationship broke up, and was inspired to make a change when her mother's cancer went into remission: "I said now is the time to get into college. She's going to see me graduate this time." All of these women could have sought other ways to change their lives but, like Linda, all of these women decided that now was the time to go to college.

Educational Goal. Although some of the persisters had career goals when they entered college, all of them specifically acknowledged the benefits of higher education. For some, education was the road to economic self-sufficiency. Rita spoke for many of these women: "I always knew education was the key to a better life. I always wanted a better life." Most of the persisters had worked at a series of jobs and were uncertain about their ability to earn a good salary with their limited education. Barbara's comment was representative of the group: "I wanted a job that paid well...I had a kid. I was working two to three jobs just to pay the minimum to live, food and rent. It drove home the desire to go back to school....It was an economic decision but also a personal one." While all of the persisters believed that a college education would improve their financial position, their economic reasons for returning were intertwined with issues of self-esteem and the way they were viewed by the outside world.

Tamara explained: "I didn't start school to get a job because I knew I could get a job. I started school for knowledge. Knowledge is power--self power."

Career Goal. Education, rather than a specific career, was the major reason these persisters entered college. However, all of them entered college with a career goal that required a college education. Four of the persisters changed their original career goal during the time they attended college. The remaining two persisters entered college with nursing as their career goal and this goal did not change. For these two women, a career goal was an important part of their educational experience. However, even for Barbara, who attained her career goal, the impetus to go to college was not to become a nurse but was "a way of getting on with my life."

For these persisters, the goal of a college education and a college diploma was much more salient than a particular career goal in their decision to enter college. It was this goal which primarily interacted with their college and personal experiences during the time they spent in college and which was reflected in their decision to persist. For Barbara and Elaine, their educational goal was strengthened by their career goal. For the others, the goal of a college education helped move them to a new career goal.

Persisters: Integrating College, Self, and Family

Tinto (1987), in developing his theory of persistence, discussed how traditional-age students entering a residential college are separated from their old friends and ways of doing things. Adults entering a community college are not separated from their old life but instead are faced with the task of integrating their new life into their old. The women in this study had some combination of established jobs, children, friends, relationships, chores, and routines when they started college. For them, entering college meant adding new experiences, expectations, friends, stresses, skills, interests, demands on their time, and opportunities for growth to what many already considered a full life. But not only did their life have to change to accommodate the academic demands, their academic demands had to be adapted to their changing personal lives. The interactions between their home life and their college life were extremely important. For

example, persisters very carefully balanced their need to study with their need to be a good mother. Supporters in their personal realm helped them handle academic crises, while supporters in the academic realm helped them handle personal crises. Attending college also resulted in personal change which affected both their family and college experiences. How they dealt with the integration of these three worlds is essential in understanding their ability to persist in college.

Academic Excitement. All of the persisters entered the college with a strong fear about their abilities to do college work. This was true not only of Linda, Dorothy, and Tamara, who had dropped out of high school, and Barbara, who had never attended college, but of Elaine who had attended college, and Rita who had been a dean's list student when she attended a rather prestigious college after high school. However these fears soon evolved into a true excitement about learning, about education, and about their ability to do well. Tamara's comments were representative of several participants: "In my first course I got C's, then B's, then A's. I thought, 'Wow, I can do this.' I remember driving home after class and having this overwhelming sense of power, so I kept going." Dorothy expressed the excitement of learning which was typical of many of the participants: "Everything is a pain when you can't understand something, when you first hit something, but once you figure it out...wow, I did this. You feel like you are on top of the world because you actually figured it out and did it."

Not only did these students begin to do well and perceive that they could accomplish their goals, but the world of academia opened up new feelings for them, and they expressed a genuine excitement about learning for its own sake. Education, not a career goal, was primary. When asked about their favorite classes, all of the students chose classes which, in Barbara's words, "expanded horizons," rather than moved them closer to a particular career. Micro-economics, philosophy, anatomy and physiology (for a non-health major) are considered some of the most challenging courses at the college. These students chose them, enjoyed the challenge, and succeeded.

Many of them talked about taking their learning outside of the college into their daily lives. Barbara chose to read books she never would have known about. Elaine spent her time at a nearby used bookstore. Linda began to read for the first time. This excitement played a major part in integrating their academic work with the demands outside the college.

Academic Adversity. While all of these persisters found that they could succeed at college, and all of them expressed an intense excitement about learning, most of them also faced problems of not doing well or failing courses in which they felt they had worked hard. However, this didn't stop them from persisting. They took the courses a second and sometimes a third time, and many were able to put this failure into an interesting perspective. Barbara, who was in pre-nursing, took chemistry three times; "I withdrew from chemistry the first time. It was part of my transition [to college] to learn I could get an average grade. I went back because I needed to take chemistry to get to nursing school." Students also took courses again in which they had done poorly but which weren't required. Dorothy got a D in business law. Although this is technically a passing grade, she took the course again because she was thinking about her future goals: "When I got a D I was disappointed, cried, and said why...The only reason I decided to take it over is that I want to go on. I want a bachelor's degree and eventually I will get one."

Attending college was exciting and broadening for the participants in this study. It was not necessarily easy. These students had to learn to deal with academic adversity and not to let it dissuade them from their goal. As explained below, supports both inside and outside the college, as well as their personal growth and initiative, contributed to their ability to take these adversities and put them in their proper perspective, and keep on moving toward their goal of a college education.

Personal Adversity. All of the persisters went through some form of personal crisis while they were in school. Linda's mother died. Rita was divorced and had two tumors removed from her throat. Dorothy's father was hospitalized, as was her boyfriend's father to whom she was very close. Barbara's mother became very ill and was placed in a convalescent home. She also

began and then ended a relationship during this time. Elaine was trying to prove paternity and fighting for child support. Tamara was hospitalized with depression.

With the exception of Linda, the crises did not stop them at all; in fact, Rita believes it helped her. "My life was crazy. Everything was crazy at home. The worse things got at home, the better my grades got. It felt like I performed better under pressure so the worse things got at home the better things were for me in school That was the driving force to keep saying I'm coming out of this."

Several factors seemed to play a part in keeping these women in school despite their personal crises. Academic supporters often helped students get through these personal crises, as Tamara explained: "When I was depressed another teacher sent me forms and my notes to the hospital. He was very non-judgmental about the fact that I was having problems." All of these students had personal supports. Lastly, their personal growth, as a result of attending college, seemed to reinforce their desire to stay in college.

Family Responsibilities and Studying. Attending college and being successful demands that the student put time and energy into studying. It was here that the intersection between the students' academic lives and their personal lives became very clear. For most, studying was enjoyable and it was selfish. It was generally done alone, away from other people, and it benefited only the person who was studying. Rita explained: "I loved the feeling of going to the library, knowing I was doing something for me. I wasn't studying for anyone else, but myself." Barbara agreed: "I studied hard. I like to explore life. I had several inventive ways to study. For the most part, studying was enjoyable." Dorothy also expressed the pleasures of studying: "The better you do [in terms of grades] the better you are doing for yourself."

This selfishness, the studying for one's self, came into direct conflict with these women's families and their sense of self as good mothers. For these single mothers, their children came first. All of them designed their study habits around their children's needs. Tamara schedule was typical: "I waited until my son went to bed. The hardest thing about being a single mother is I have to get dinner and do the laundry. He'd go to bed at 8:00, but sometimes it was delayed, so I

wouldn't start until 8 or 9:00 and study until 1:00." No matter how exciting and important college was for these women, their role as mother and their children's well being was very important. Those who succeeded academically found ways to take care of both.

Academic Supports. While it was clear that the deep desire of the persisters to obtain a college education was a major reason for their persistence, each found support in a variety of people and programs at the college. Many of them attributed their success at least partially to these people and activities. The exact composition of the support did not seem important -- peers, faculty, professional or support staff, or an established program -- as long as there was some support within the college.

For some the support came from the staff of the re-entry program. As Elaine explained: "When it gets too rough, last time I came in and talked to the coordinator." The program is designed to bring students together with their peers. Many students still had lasting contacts with those students. Barbara's experiences were similar: "The first semester was a lifesaver for me, being with lots of women who had been through the same thing." For some students, professors were an important support and inspiration. Barbara, Rita, and Elaine all indicated that teachers had supported them, befriended them, and as Elaine said, "gone out of their way for them" and inspired them. The two students who worked at the college through the work study program received support and encouragement from their supervisors, both of whom were support staff. As Rita said, it can be a "lonely life" going back to college. Programs, work-study jobs, professors, staff, and other students all helped to keep these students connected to the college, a connection which was important in helping them reach their goals.

Personal Supports. Family provided much of the inspiration that kept the women who persisted in college. Going to college was perceived by some as a very selfish action because it took time and energy from other activities and people, and in many ways it seems only to benefit the person who is in school. These women, however, saw their act of returning to school as ultimately benefiting their children. For Dorothy, her goal was "to better my life for my children -- to better their lives." Rita said it was the idea of helping her children that kept her going. "I

felt if I stopped I would end up back in the rat race somehow...I was determined that my children would never have to live in the ghetto and be exposed to the kinds of schools I was." Others saw going back to school as a way to provide a role model for their kids. However, the family also provided competing demands, such as dealing with child care when the children were sick, or getting them to doctors appointments, all of which strained the ability of these women to complete their academic work.

Children were also some of their biggest supporters. Tamara explained: "If I get an A, [her son] jumps up and down." Barbara received similar support: "In the first semester of my final year at nursing school I was having a tough time with an instructor. She asked me 'Are you sure you want to be in the program?' It really rocked me. I went home and talked with my daughter and she said, 'Mom, whether or not you make it you're still the best mom and I know you'll make a great nurse.' I needed to hear that ."

Personal supports came in a wide variety of forms. For two women, religion played a major role in their personal support system. For others, such as Linda, a boyfriend helped: "I don't know what I would have done if he wasn't in my life. Financially he helps out. He's just there for us."

Old friends were sometimes supporters and sometimes not. Rita was representative of those who believed they lost some friends when they returned to school: "I lost friends at home by going to school." While others, such as Elaine, had friends who provided them with lots of support: "My girlfriend. I had a big test in anatomy one Monday and she went ahead and took the kids to church so they'd be out of the house and I'd have some quiet time to study."

Financial Support. All of the persisters, with the exception of Barbara, were on welfare. Most of them had begun collecting AFDC as a result of a relationship ending. Some ended up receiving AFDC payments when they left their jobs to return to school. All received financial aid in the form of Pell Grants, and some had work-study jobs. Some of them also had part-time jobs. Most of them received support from the Job Connection program (the State of Connecticut's version of the Family Support Act), which provided financial assistance for child

care, transportation, and books for AFDC recipients for up to three years while they are receiving training or education. For all of them, this support was essential in their ability to stay in college. In answer to what helped her meet her goals, Rita's first response, with which others concurred, was, "having financial help with day care."

It appears that for all of these women, the financial sacrifices were worth taking because they knew they were creating a better life for their children and themselves. Elaine explained: "I want to make a better way for my kids. My 12-year-old always wanted us to have a house. I've tried to instill in him that those are material things you can't take with you when you go. Education is real important. It's something, if you get it, no one can take it away." Welfare and financial aid provided enough financial support to house, feed, and clothe the family, as well as pay for childcare, tuition, books, and medical expenses. These were basic needs. For women on welfare, the absence of financial aid would make it impossible to come to college as they would not be able to afford the tuition no matter how low.

Personal Change. For all of the persisters, attending college provided a profound sense of personal growth. Most of them had come out of bad or abusive marriages which had affected their sense of self. Barbara summarized what others felt: "When I started I had very low self-esteem probably from my bad marriage. Going to school did a lot for my self-esteem. It strengthened myself as an adult. I stopped trying to meet others' expectations for me." Linda believes going to college completely changed her world. Tamara describes going to college as a re-birth: "College became my womb, my re-birth. The womb of education -- not the real world. I stepped outside the normalcy and drudgery and it opened a new door." Several women compared the change to the change involved in having children. Barbara's comments were representative of this: "Even though I had a kid, [going to college] changed me more profoundly. I withdrew from a lot. I became very selective about what, who, and where I did stuff."

For these persisters, academic excitement, surviving academic and personal crises, studying, academic and personal supports, financial supports, and personal growth all interacted

in complex ways. The ability to integrate all of these factors played a large part in the ability of these women to persist.

Persisters: Degree as Goal

After spending time in college, all of the persisters set career goals for themselves. These goals were part of their motivation to persist, and for many of them, their goal required more than an associate's degree. However, by itself a career goal did not seem to be enough. A sense of personal drive also pervaded the way each of them described how they knew they would complete their educational goals.

Career Goal. While the goal of getting an education was the key to entering and persisting in college, all the participants, except Tamara, had career goals which excited them. Elaine was planning on transferring to a four-year college for her nursing degree because "what can you do with a two year degree." Christine, who had a nursing degree, wanted to get her bachelor's degree because the field was changing. Dorothy switched to a secretarial degree, "because I started working in one of the offices making extra money in the work-study program and I found out I really like doing the office work." But her goal now was "to do better, to get a B.A. instead of an A.A. and move higher in the business aspect of it." Rita, who graduated with a B.A. in American Studies, wanted to teach college. Tamara had the vaguest career goal, but a clear educational goal of a bachelor's degree.

Personal Drive. While it may be important to have clear career goals and, in most cases, the present goals these women talked about were much clearer than those they had when they entered the program, they regarded their ability to persist not in terms of their goals, but in terms of their personal drive. Dorothy's comments were typical: "You have to be strong and really, really want it....I hit a few brick walls....You have to keep trudging through....You need will power." Rita agreed: "I believe you can take any tragedy and turn it into something great." Elaine concurred on the need for personal drive: "I think you have to have some inner drive within yourself. I have a strong desire to want to do it and to want to succeed. If you have that desire you can succeed." Barbara expressed similar sentiments: "There wasn't a thing about

[coming back to college] that wasn't tough or a challenge." Elaine's comment is representative of what a lot of these women said, "I'm more determined. I don't care what it takes to get this degree. I just know I'm going to keep going on until I get it. It's just a strong desire within myself to want to do that. I have a lot of determination. I want to make a better way for my kids."

Non-Persisters: The Core Categories

In the quantitative analyses performed on the survey, the discriminant function analyses were relatively unsuccessful at classifying non-persisters. This difficulty with understanding non-persisters seemed to extend to the qualitative data as well. Non-persisters did not seem to share any particular set of qualifications, but they clearly differed from persisters in their reasons for attending college; their lack of integration of college, self, and family; and their lack of commitment to obtaining a degree.

The most striking difference between the persisters and the non-persisters is that although the non-persisters had clear career goals, they didn't share with the persisters the sense that education itself was a goal. None of them indicated that education was *the* way to better their lives. For some, this opinion may be the result of their having other choices for their lives such as previous training in a career. With the exception of Marilyn, these women enrolled in college because someone else suggested it and someone else was paying for it.

Rather than finding a way, as the persisters did, to integrate their academic experiences with their personal lives, the non-persisters believed that their academic lives and personal lives conflicted. Unlike the persisters, they seemed to have no compelling educational goal to stay in school; they decided to leave and take care of the other parts of their lives. Finances were often the reason they gave for leaving, but their finances were no different from those of the women who chose to persist, rather the choices they made about finances were different.

A New Model of Persistence

Underlying Tinto's theory of persistence is the model of a traditional-age student who leaves home and enters the new world of a residential college. If she can make the transition from the world she left behind and fit into this new world both socially and academically, then, according to Tinto, she should persist. If not, she will leave. However, community colleges do not offer separate new worlds to their students. They offer a new facet which must be added to the student's world. On some days a student may spend no time at all at the college; on other days she may spend many hours there. Adults also do not and can not leave their old world behind when they enter college. They have families, children, friends, jobs, and responsibilities, which are waiting for them during the few hours when they are at the college. Given this difference between the assumptions underlying Tinto's theory and the realities of the lives of adult women who attend community colleges, it is not surprising that Tinto's theory is not adequate to explain persistence in adult women.

A new model of persistence derived from the quantitative and qualitative findings is proposed below (see Figure 2). For an adult woman attending a community college, persistence

---

Insert Figure 2 about here

---

requires the intention of changing one's life by getting a college education, the ability to integrate the various aspects of attending college with the student's personal and family life, and the goal of getting a college degree. Each of these aspects of persistence acts upon and reinforces the other.

For persisters, entering college is a conscious decision that a college education is an essential step in changing their lives. Persisters interviewed in the qualitative phase of this research believed that they had to change their lives and they saw college as the direction to take. The fact that financial aid was important in distinguishing traditional persisters from traditional

non-persisters may reflect the fact that for low income women a college education offered the promise of a better life and provided at least some support for attaining it.

Career goals may lead the student to the decision to attend college, but career goals alone do not appear to explain whether adult women will persist. This was apparent not only from the interviews but from the quantitative analysis as well. The student must hold education itself as a goal. This is more than just a utilitarian sense of college, a sense that college is useful because it can provide the skills to become an accountant or attain a degree that ensures a job. Rather, it is a sense that education in itself is powerful. This sense of college as their choice and education as their goal is reinforced by their attendance at the college and their ability to integrate all the aspects of their new lives. It is also reinforced by their new career goals and their personal drive.

Most importantly, persisters are able to integrate the academic excitement and challenges and their personal growth with the financial and time sacrifices they are making. They must be able to balance the needs of their children with their need for time to study. They must believe that the sacrifices that all of them are making are important because of what their education means for the future. While it demands sacrifices, going to college is also a selfish act. Both the intangible rewards of attending college, like personal growth, increased understanding of the world, and intellectual curiosity, and the tangible rewards like grades and academic awards, accrue to no one but the student. Persisters must believe that this selfish act is in fact good not only for them, but for their families. As Rita said, "before [coming to college] I used to think that thinking about me was selfish. Now I know that taking care of Rita is okay."

It is also important for persisters to have some combination of academic and personal supporters who push, prod, and encourage them through this time of college. Persisters used all types of supports: religion, work-study jobs, ex-boyfriends, friends, partners, their children, faculty, staff, and other students. No persister used all of these supports; however, all of them used some combination of supports, and peer support seemed particularly salient. All the persisters had at least one other student they felt knew what they were going through, that they could study with, or who had goals which were similar to theirs. Though the quantitative

analysis indicated that the amount of time spent socializing with peers was low for both persisters and non-persisters, it appeared from the interviews that even a small amount of time spent with a peer who had similar goals was an important type of support for persisters. This may also explain why social integration was higher for those whose degree aspirations increased than for those whose degree aspirations decreased. Two of the persisters, who were interviewed, received work study jobs as part of their financial aid package. These jobs provided them not only with financial help, but a close connection to the college, and a staff member who knew them and gave them additional support. Persisters are able to ignore their detractors. Persisters are able to use these supports, their growth, their choice of college, and a college degree as their goal to help them through the personal and academic crises they face. Meeting and surviving these crises also gives them the drive and personal growth to persist.

All of these factors increase the personal drive of the persisters and their commitment to themselves to persist until they graduate or until they meet their even higher goal. College also requires self-discipline, especially when so many other demands are made on one's time. It is this drive, coupled with both an educational goal and a career goal, which helps keep the student in college and moving ahead. It appeared obvious from the quantitative analysis of traditional persisters that those with higher educational goals were more likely to persist than those whose degree goals were lower.

A chronological order appears in these three aspects: first choosing to come to college; then integrating college, self, and family and, finally, striving to attain the degree. However, they do not work in a linear manner. Each reinforces the other and provides the motivation to persist. If any aspect is missing, the others are diminished.

A limitation to this model may exist. The quantitative findings were based on a sample of 306 women from a variety of racial and economic backgrounds. The interviews were purposefully done with poor women including an oversampling of women of color. Integrating the findings from both, as has been done in proposing this model, may overemphasize facets which are more salient to poor women.

Implications for Community Colleges

Community Colleges are "open door" colleges in that they accept anyone who wants to come with no entrance exam or restrictions (although some programs within the colleges are selective). It is clear from this study that the open door policy is a lifesaver for adult women. While not all adult women with low high school grades will succeed at the community college, this research shows that there is no way of predicting from high school grades which women will persist. The open door policy and developmental classes offered by the college provided a second chance for these women, one they might never have had if admission was restrictive. This research indicates clearly that the open door policy is essential for adult women.

To cope with high school students who are unprepared for college, faculty are increasingly putting restrictions on late papers, make-up exams, etc. While this may help discipline traditional-age students, it ignores the balancing act that adult women students are undertaking. If a student's child has a high fever, and no child care is available, then exam or not, the student will not leave home. Academic policies must be written to both encourage that work be done in a timely manner, and to understand the struggles adult students have to undertake to accomplish their goals.

Financial support is critical. For women on welfare, Pell Grants are essential. While tuition is low at community colleges, it is still generally impossible for welfare recipients to find the money to pay for tuition and books. Secondly, for women with young children, having the money to pay for childcare may determine whether they can attend college or not. As welfare "reform" advances, community colleges need to examine the types and cost of childcare facilities that they can offer.

Anything that the college can do to facilitate the integration of family life and college life for adult students would encourage persistence. Some ideas to consider include orientations and programs designed to help re-entry students, affordable and available day care, and ensuring that classes and college services are offered at convenient times for adult students. Designing programs which stimulate the student's academic excitement, including advising which directs

students to academically challenging courses and provides the support to help them meet the challenge of such courses, would also encourage persistence

Implications for Further Research

The findings of this research have suggested a new model of persistence for adult women in community colleges. The quantitative phase of this research was designed to test Tinto's model. The results of that research indicate that Tinto's model does not adequately explain persistence for this population. These results also led to the proposed model. However, it is important to design further quantitative studies to test whether the proposed model can be supported. Further survey research designed to test the new categories and variables within them is suggested. Further quantitative and qualitative studies of women from different socio-economic standings may suggest alterations in the model to better fit all women. It is also important to design research to see whether this model is suitable only for non-traditional-age women in community colleges. Given the recent economic downturns, more and more men are returning to community colleges. Some of these men are on welfare, and some are single parents. Many colleges are in the process of consolidating programs. Many programs, such as re-entry programs that were originally designed for women, now accept men. Research designed to test whether this model fits men would provide useful information in meeting the needs of both men and women. It may also be true that the model fits adult women who resume their education in different types of institutions at different educational levels. For example, further research should explore whether the model would be applicable to adult women who return to graduate school on a non-residential basis.

Most importantly, the research suggests that the ability to integrate the various parts of college, home, and personal lives is essential for persistence. This suggests that research projects be designed to test ways that colleges can better aid their adult women students with all aspects of this integration. In a time of shrinking enrollments in colleges and tightening budgets based

on student enrollment, such projects would be mutually beneficial to adult women and to the colleges themselves.

REFERENCES

Bean, J. & Metzner, B. (1985). A Conceptual Model of nontraditional undergraduate student attrition. Review of Educational Research, 55, 485-540.

Brint, S. & Karabel, S. (1989). The diverted dream: Community colleges and the promise of educational opportunity in America, 1900-1985. New York: Oxford University Press.

Borg, W. & Gall, M (1989). Educational research (5th ed.). White Plains, NY: Longman.

Castle, E. M (1993). Minority student attrition research: Higher education's challenge for human resource development. Educational Researcher, 22 (7), 24-30.

Clark, B. R. (1980). The "cooling out" function revisited. In G.B. Vaughan (ed) Questioning the community college role (pp. 15-31). San Francisco: Jossey-Bass.

Coggins, J. H. (1979). A Comparison of selected cognitive and affective variables of adult women persisters and non-persisters at Middlesex Community College. Unpublished doctoral dissertation. University of Connecticut, Storrs.

Dougherty, K. (1987). The effects of community colleges: Aid or hindrance to socioeconomic attainment? Sociology of Education 60, 86-103.

Dougherty, K. (1988). Politics of community college expansion: beyond the functionalist and class-reproduction explanations. American Journal of Education, 96, 351-393.

Dougherty, K. (1994). The contradictory college: The conflicting origins, impacts, and futures, of the community college. Albany: State University of New York Press.

Eaton, J. S. (1988) Overview: Colleges of choice. In J. S. Eaton (ed). Colleges of choice (pp.1-24). New York: MacMillian.

Eaton, J.S. (1994). The fortunes of the transfer function: Community colleges and transfer 1900-1990. In G. Baker III, ed. A handbook on the community college in America: Its history, mission, and management. Westport, CT: Greenwood.

Farabaugh-Dorkins, C. (1991). Beginning to understand why older students drop out of college. The Association for Institutional Research, 39, 1-10.

Iverson, B.K, Pascarella, E.T., & Terenzini, P.T. (1984). Invormal faculty-student contact and commuter college freshmen. Research in Higher Education, 2(2), 123-136.

Jick, T. D. (1979) Mixing qualitative and quantitative methods: triangulation in action. Administrative Science Quarterly, 24, 602-611.

Karabel, J. (1986). Community colleges and social stratification in the 1980's. In L. S. Zwerling (ed.) The community college and its critics. (pp. 14-30). San Francisco: Jossey-Bass.

Mathison. S. (1988). Why triangulate? Educational Researcher, 17(2), 13-17.

Mutter , P. (1992). Tinto's theory of departure and community college student persistence. Journal of College Student Development, 33 (4). 310-318.

Neuman, W. F. (1985). Persistence in the community college: The student perspective. Unpublished Doctoral Dissertation. Syracuse University, Syracuse.

Pascarella, E. T., Chapman. D. (1983). A multi-institutional, path analytic validation of Tinto's model of college withdrawal. American Educational Research Journal, 20, 87-102.

Pascarella, E.T., Duby, P. B, & Iverson, B. (1982). A test and reconceptualization of a theoretical model of college withdrawal in a commuter institution setting. Sociology of Education, 56, 88-100.

Pascarella, E.T., Smart, J.C., & Ethington, C.A. (1986). Long-term persistence of two-year college students. Research in Higher Education, 24(1), 47-71.

Pascarella, E.T. & Terenzini, P.T. (1991). How college affects students. San Francisco: Jossey-Bass.

Strauss, A. (1987). Qualitative analysis for social scientists. New York: Cambridge University Press.

Strauss, A. & Corbin, J. ((1990). Basics of qualitative research: Grounded theory procedures and techniques. Newbury Park, CA: SAGE Publications.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. Review of Education Research, 45, 89-125.

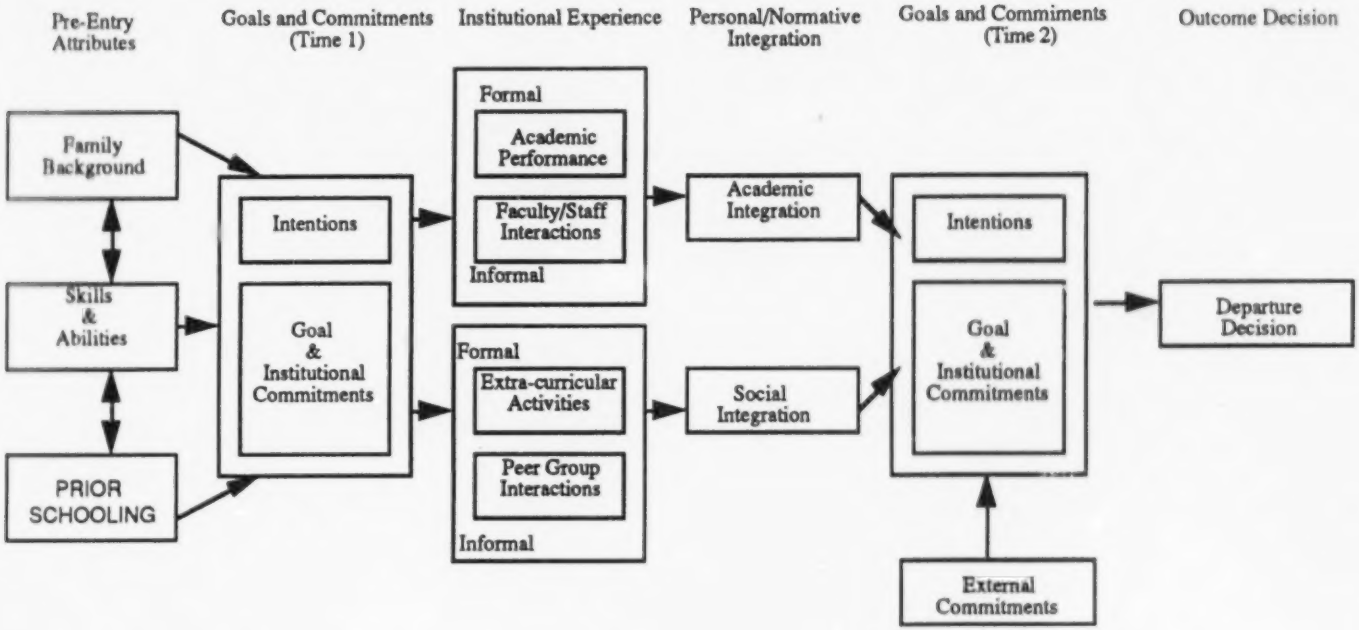
Tinto, V. (1987). Leaving college: Rethinking the causes and cures of student attrition. Chicago: The University of Chicago Press.

Vaughan, G.B. (1980). Critics of the community college: An overview. In G.B. Vaughan (ed.) Questioning the community college role (pp. 1-14). San Francisco: Jossey-Bass.

Wilson, W. J. (1987). The truly disadvantaged: The inner city, the underclass, and public policy. Chicago: University of Chicago Press.

Zwerling, L. S. (1992). First-generation adult students: In search of safe havens. In L. S. Zwerling & H.B. London (Eds.) First-generation students: Confronting the cultural issues (pp.45-54). San Francisco: Jossey-Bass Publishers.

Figure 1 TINTO'S MODEL OF PERSISTENCE



From *Leaving college: Rethinking the causes and cures of student attrition* (p. 41) by V. Tinto, 1987, Chicago: The University of Chicago Press

Table 1

Coding of Variables Used in Survey

Variable	Coding
Pre-Entry Variables	
Age	Actual age at time survey was filled out
Race	0=women of color; 1=white women
Marital Status	0=no partner when entered college; 1= yes partner
Number of children	Actual number of children when entered college
High School GPA	1=A's and B's; 2=B's and C's; 3=C's and D's; 4=D's and F's
Attitude Toward High School	6 point Likert scale (1=strongly disagree; 6=strongly agree)
Socio-Economic Status	1= received financial aid; 2= did not receive financial aid
Initial Goal	1=non degree reasons; 2=certificate; 3=transfer 4=Associate's Degree; 5=Bachelor's Degree; 6=Graduate
Final Goal	same coding as initial goal
GPA	Actual GPA from college records
Academic Integration	6 point Likert scale (1=strongly disagree; 6=strongly agree)
Social Integration	5 point Likert scale measruing time spent in college in non-academic pursuits (1=never; 2 = < 5 times a semester; 3=five to ten; 4=ten times to once a week; 5=>once a week
External Commitment	
Spousal Support	6 point Likert scale (1=strongly disagree; 6=strongly agree)
Children's Support	6 point Likert scale (1=strongly disagree; 6=strongly agree)
Friends outside college support	6 point Likert scale (1=strongly disagree; 6=strongly agree)
Employment	1=no outside employment; 2=college work study jobs 3=part time employment; 4=full time employment

Table 2

Means of Those Who Did and Did Not Return Surveys

Variable	Did Not Return Means	Did Not Return SD	Did Return Means	Did Return SD	All Groups Means	All Groups SD
Age (year born)	1953.2	8.70	1951.6	8.05	1952.4	8.37
Race (0=of color, 1=white)	.83	.37	.84	.37	.84	.37
Degree (0=none 1=certificate, 2= AS/AA)	.23	.64	.47	.84	.37	.75
Grade Point Average (0.0 to 4.0)	2.50	1.32	3.27	.77	2.90	1.07
Credits (Number of credits earned)	20.46	22.07	30.06	21.99	25.44	22.03
Developmental Course[1] (Number tested into 0 to 3)	1.10	.98	.83	1.00	.96	.99
	N=240		N=259		N=499	

Note. 113 cases have missing data because developmental testing information was not available on all students. These cases were not used in the analysis.

[1] Students, when they enter the college, are required to take tests to asses their reading, writing, and math abilities. If their scores do not indicate that their abilities in each of these subject areas are at college level, they are required to take developmental classes. Students can be required to take up to three developmental courses.

Table 3

Pre-Entry Attributes of Respondents

	Number	Percent
Race/Ethnicity		
African American/Black	17	5.6
Latina	11	3.6
Asian/Asian American	2	0.7
American Indian	7	2.3
White	265	86.6
Mixed	4	1.0
Missing Data	0	0.0
Family Income When in College		
<$10,000	62	20.2
$10-25,000	70	22.9
$25,000-40,000	79	25.8
>$40,000	88	28.8
Missing Data	7	2.2
Received Financial Aid		
Yes	97	31.7
No	206	67.3
Missing Data	3	0.9
Received Welfare Benefits (AFDC)		
Yes	40	13.0
No	262	85.7
Missing Data	4	1.3
Employed While in College		
Part-time	88	28.8
Full-time	86	28.1
College Work Study	28	9.2
Not Employed	93	30.4
Missing Data	11	3.6
Age of Youngest Child While in College		
Under five	52	16.9
5-11	101	33.0
12-17	50	16.3
18 or older	43	14.1
No children/missing data	60	19.6
Marital Status		
Married/committed	208	68.0
Single	13	4.2
Divorced	74	24.2
Widowed	8	2.6
Missing Data	3	1.0

Note. N=306. Percentages don't always equal 100% due to rounding.

Table 4

College Program and Goal of Respondents

	Number	Percent
Program they are/were enrolled in		
Accounting	9	2.9
Allied Health	23	7.5
Business	20	6.5
Data Processing	1	0.3
Engineering	0	0.0
General Studies	71	23.2
Hospitality	1	0.3
Human Services	29	9.5
Humanities	9	2.9
Liberal Arts	14	4.6
Office Admin	7	2.1
Certificate	4	1.3
No program	118	38.6
Initial Goal (if checked more than one, their highest goal was coded)		
Associate's Degree	121	39.5
Certificate	12	3.9
Transfer	22	7.2
B.A./B.S	26	8.5
Graduate Degree	9	2.9
To take specific classes	8	2.6
To see if I like college	15	4.9
For intellectual stimulation	12	3.9
To get ahead at my job	8	2.6
Exploring what next	61	19.9
Other	10	3.3
Missing	2	0.7

Note. N=306. Percentages don't always equal 100% due to rounding.

Table 5

Demographics Of Interview Participants

Name[a]	Race	Income/ Fin. Aid,	Year[b] Began	Age[c]	Significant Other[d]	Children's ages[c]
Persisters						
Elaine	African-Amer.	welfare yes	F1993	37	no/no	4, 10
Tamara	White	welfare yes	F1989	25	no/yes	6
Rita	African-Amer.	welfare yes	F1991	33	yes/no	11 mo, 6
Linda	African-Amer.	welfare yes	S1992	25	no/yes	4
Dorothy	White	welfare yes	F1989	26	no/yes	7, 10
Barbara	White	>10,000 no	F1988	36	no/yes	9
Non Persisters						
Louise	African-Amer.	welfare/ yes	F1993	42	no/no	8
Marilyn	White	>10,000/ yes/no	S1989	43	yes/yes	22, 24
Pam	White	10-25,000 no	F1989	44	yes/yes	10,13
Sally	African-Amer.	10-25,000 no	F1993	49	no/no	12, 13, 19 25, 27, 29

Note. [a]Names have been changed

[b]Year and semester the interviewee began at this community college
F=fall semester S=spring semester

[c]Age and children's ages at the time the interviewee began college

[d]Spouse or person with whom the interviewee had a significant relationship when she began college / at some time during her years in college

Table 6

Means and Standard Deviations of Traditional Persisters' and Non-Persisters Pre-Entry Attributes

	Trad. Non-Persister		Trad. Persister		Both Groups	
Variable	Means	SD	Means	SD	Means	SD
SES financial aid 0=no, 1=yes	.18	.38	.38	.49	.32	.46
Race 0=of color, 1=white	.86	.35	.88	.33	.87	.34
Age year born	1949.8	8.75	1952.1	7.75	1951.4	8.05
Marital Status 1=partner 0=none	.75	.44	.69	.47	.71	.46
Attitude toward HS mean scale score (1-6)	3.75	1.48	3.58	1.59	3.59	1.49
High School Grades 1=A-B 4=D-F	2.00	.72	1.88	.79	1.91	.77
First Goal 1=no degree 6=grad school	2.51	1.67	3.02	1.57	2.87	1.60
Number of children actual number	1.96	1.52	1.98	1.40	1.98	1.44
	N=51		N=122		N=173	

Note. 60% of the 306 cases were used in the analysis. The other 40% were used for cross validation. 60% of 306=183. Ten cases were omitted from the analysis because of missing data leaving a total N of 173.

Table 7

Means and Standard Deviations of Measures of Traditional Persisters' College Experience

	Trad. Non-Persister		Trad. Persister		All Groups	
Variable	Means	SD	Means	SD	Means	SD
Academic integration mean scale score (1-6)	5.26	.71	5.28	.81	5.28	.78
Social integration mean scale score (1-6)	1.08	.89	1.28	.86	1.22	.87
Actual GPA from college records	2.97	1.05	3.38	.65	3.26	.79
	N=52		N=127		N=179	

Note. 60% of the 306 cases were used in the analysis. The other 40% were used for cross validation. 60% of 306=183. Four cases were omitted because of missing data

Table 8

Means and Standard Deviations of Traditional Persisters' External Commitments

	Trad. Non-Persister		Trad. Persister		All Groups	
Variable	Means	SD	Means	SD	Means	SD
Employed 1=not 4=full-time	2.47	1.28	2.43	1.18	2.44	1.21
Spousal support mean scale score 1-6	4.62	.95	4.60	1.09	4.61	1.05
Children support mean scale score 1-6	4.57	1.12	4.56	.94	4.49	.10
Friends outside college mean scale score 1-6	5.35	1.11	5.44	1.01	5.41	1.04
	N=57		N=131		N=188	

Note. 118 subjects had missing data on either spouses/partners or children.

Table 9
Summary of Quantitative Findings

	Significant	Non-Significant
•Traditional Persisters		
Pre-Entry Attributes	Financial Aid	Race, age, marital status, high school grades, attitude toward high school, first goal, number of children
Academic and Social Integration	GPA	Academic integration --both high Social integration -- both low
Final Goal	Final Goal	
External Commitments		employment; support of partner, children, and friends
•Goal Persisters		
Pre-Entry Attributes	Marital Status	Race, age, financial aid, high school grades, attitude to high school, first goal, number of children
Academic and Social Integration	GPA	Academic integration Social integration
Final Goal		Final Goal
External Commitments		employment; support of partner, children, and friends
•Goal Changers		
Pre-Entry Attributes		Race, age, financial aid, marital status, high school grades, attitude to high school, first goal, number of children
Academic and Social Integration	GPA Social Integration	Academic Integration
External Commitments		employment; support of partner, children, and friends

Table 10

Core Categories

1. College As A Choice

Belief in Need to Change Life

Personal/Financial Support of Family

- Educational and Career Goals

2. Integrating College, Self, and Family

College

- Academic Excitement
- Academic Adversity
- Academic Supports

Self

- Personal Supports
- Personal Growth
- Personal Adversity

Family

- Family Supports
- Family Responsibilities

3. Degree Goal

Personal Drive/Belief System

Career Goal

Figure 2

MODEL OF PERSISTENCE OF ADULT WOMEN IN COMMUNITY COLLEGE

Goldsmith, 1995